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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,113	06/27/2001	Ji Zhang	CISCP214	6264
22434	7590	08/22/2005	EXAMINER	
BEYER WEAVER & THOMAS LLP P.O. BOX 70250 OAKLAND, CA 94612-0250			PHILIPPE, GIMS S	
			ART UNIT	PAPER NUMBER
			2613	

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/894,113	ZHANG ET AL.
	Examiner Gims S. Philippe	Art Unit 2613

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### **Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 29 July 2005.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-43 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5)  Claim(s) \_\_\_\_\_ is/are allowed.  
6)  Claim(s) 1-43 is/are rejected.  
7)  Claim(s) \_\_\_\_\_ is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_.

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 29, 2005 has been entered.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20, and 23-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Patent no. 6,377,627) in view of Adiletta et al. (US Patent no. 6304604).

Regarding claims 1, 11, 24, and 34, Shen discloses an apparatus and method for performing an inverse transform on a block of transform coefficients, the block having rows and columns (See Shen col. 3, lines 36-38), the method comprising identifying zero patterns in the block of transform coefficients to derive zero pattern information

(See Shen col. 4, lines 50-54); and performing one-dimensional inverse transforms on a subset of the total number of rows and columns in the block of transform coefficients by using zero pattern information (See Shen col. 4, lines 8-20, and lines 50-55).

It is noted that Shen is silent about determining the location of zero values or near zero values for multiple rows and for multiple columns in the block of transform coefficients.

Adiletta discloses an inverse transform including the step of determining the location of zero values or near zero values for multiple rows and for multiple columns in the block of transform coefficients (See Adiletta col. 5, lines 58-64, col. 7, lines 63-67, col. 8, lines 1-5, and col. 11, lines 1-6).

Therefore, it is considered obvious that one skilled in the art at the time of the invention would recognize the advantage of modifying Shen's inverse transform method by incorporating Adiletta' step of determining the location of zero values or near zero values for multiple rows and for multiple columns in the block of transform coefficients. The motivation for performing such a modification in Shen is to improve the performance of the decompression system as taught by Adiletta (See Adiletta col. 11, lines 7-11).

As per claims 2, 8, 10, 12, 18, 20, 23, 25, 31, 33, 35, 41, 43, most of the limitations of these claims have been noted in the above rejection of claims 1, 11, 24, and 34. In addition, Shen further discloses the block of transform coefficients being an MPEG encoded block of 8x8 discrete cosine transform (DCT) coefficients (See Shen col. 4,

lines 26-34), and wherein the transcoding and the decoding are performed on MPEG bitstreams (See Chen col. 3, lines 66-67, and col. 4, lines 1-2).

As per claims 3-7, 9, 13-17, 19, 26-30, 32, 36-40, and 42, most of the limitations of these claims have been noted in the above rejection of claims 1, 11, 24, and 34. In addition, Shen further discloses performing one-dimensional inverse transforms comprises performing one-dimensional transforms on a subset of the total number of columns in the block of transform coefficients (See Shen col. 3, lines 36-46), on all the rows in the block (See col. 3, lines 36-46, and col. 4, lines 26-45), and wherein the transforming is performed during decoding (See Shen col. 3, lines 66-67, col. 4, lines 1-2).

3. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Patent no. 6,377,627) in view of Lee (US Patent no. 6,763,070).

As per claims 21 and 22, most of the limitations of these claims have been noted in the above rejection of claim 11.

It is noted that Chen is silent about a memory associated with a cable modem headend line card, and wherein the processor is configured to rescale data to meet bandwidth constraints.

Lee discloses an apparatus and method for performing one-dimensional inverse transforms wherein a memory associated with a cable modem headend line card (See

Lee col. 14, lines 29-38), and wherein the processor is configured to rescale data to meet bandwidth constraints (See Lee col. 4, lines 25-40).

Therefore, it is considered obvious that one skilled in the art at the time of the invention would recognize the advantage of modifying Chen's transform operation by providing Lee's cable modem headend line card, and Lee's configuration to rescale data. The motivation for performing such modifications in Chen is not only to implement a stand-alone system, but also to be able to use different networks having different bandwidth constraints as taught by Lee.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gims S. Philippe whose telephone number is (571) 272-7336. The examiner can normally be reached on M-F (9:30-7:00) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dastouri S. Mehrdad can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gims S Philippe  
Primary Examiner  
Art Unit 2613

GSP

August 18, 2005